

to W.M.A. International headquarters are maintained in New York.

As against such an auspicious beginning and such an inspiring list of objectives and studies, it is unfortunate that W.M.A. has found financial difficulties besetting it. The constituent associations are more than willing to contribute their fair share of funds to run the organization but most of them find themselves up against national currency restrictions which prohibit their sending dollars out of their own national boundaries. The medical association in Great Britain, for instance, could not send dollars to this country as dues to W.M.A., but it could and did contribute by meeting the expenses of the November 1949 meeting in London.

Inasmuch as the United States remains the only major nation without international currency restrictions, it is incumbent on this country at present to supply the modest financing required by W.M.A. A national committee has been established for this purpose in New York and has announced as its objective the securing of 5,000 American physicians as individual members at ten dollars each per year.

Such a membership would achieve the financial goal of W.M.A. and eliminate the need of soliciting funds from state and county medical societies, pharmaceutical producers, allied professional organizations and others.

CALIFORNIA MEDICINE is not a fund-raising publication, but in the matter of W.M.A. it may with propriety express an attitude. Here is an organization so worthy of medical support that any support this publication can give it is gladly extended. California doctors are noteworthy for their support of sound causes in the interest of medicine and it is hoped they may accept this challenge in their customary manner of generosity. Memberships for individual physicians carry with them a subscription to the publications of W.M.A. and other valuable returns.

Membership dues may be sent direct to the World Medical Association, United States Committee, at 2 East 103rd Street, New York 29, or through the office of the California Medical Association. The cause is right, the hour ripe.

## *Letters to the Editor . . .*

### **Tuberculin "Activator"**

In 1927 it was shown by Rich and Lewis<sup>3</sup> that living tissue cultures of leukocytes from tuberculous guinea pigs are hypersensitive to tuberculin. Favour<sup>1</sup> and his associates of Harvard University afterwards demonstrated the same tuberculin hypersensitivity in the leukocytes of tuberculous patients. When suspended in normal human plasma, such leukocytes undergo fairly rapid lysis on the addition of a small amount of old tuberculin. Leukocytes from normal tuberculin-negative individuals, similarly suspended, resist lysis. Since lysis takes place in the presence of normal plasma, Favour concluded that it is an example of purely cellular rather than humoral allergy.

This conclusion was subsequently challenged by Miller,<sup>2</sup> based on his belief that the earlier tests were performed with inadequately washed leukocytes. White cells obtained from the bloods of tuberculous patients were therefore repeatedly washed in isotonic salt solution. Duplicate samples were suspended in normal human plasma and in the plasmas of tuberculous individuals. Control tests were made with the leukocytes of normal tuberculin-negative individuals.

To 0.4 cc. of such cell suspensions 0.1 cc. of dilute tuberculin was added. Total white cell counts were made immediately and after 60 minutes' in-

cubation at 37° C. Within the limits of the experimental error no reduction in initial cell count was noted in any of the leukocytes suspended in normal tuberculin-negative plasma. Leukocytes from both normal individuals and from tuberculous patients, however, underwent from 20 to 35 per cent reduction in cell count in all tubes in which they were suspended in plasma from tuberculous individuals.

Tuberculin cytotoxicity thus occurs only in the presence of tuberculous serum, both normal and tuberculous leukocytes being equally susceptible to this lysis. Lysis is thus due to the adjuvant action of some specific component of tuberculous plasma. This component is non-dialyzable and is inactivated by heating to 56° C. for 15 minutes. It is precipitated with the globulin fraction of the plasma proteins.

#### REFERENCES

1. Favour, C. B.: Proc. Soc. Exp. Biol. and Med., 65, 269, 1947; 70, 369, 1949.  
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2. Miller, J. M., Favour, C. B., Wilson, B. A., and Umbarger, M. A.: Proc. Soc. Exp. Biol. and Med., 70, 738; 71, 287, 1949.
3. Rich, A. R., and Lewis, M. R.: Proc. Soc. Exp. Biol. and Med., 25, 596, 1927-28.

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